

Meteorological Observations at the Madras Observatory 1894 April 6.

h	m	Reduced Barom.	Thermometer in Shade.		Humi- dity.	Sun. Maximum Thermometer.	Remarks.
			Dry.	Wet.			
19	0	29.926	76.9	75.1	92	...	
19	15	...	78.1	75.8	90	...	
19	30	...	79.1	76.2	87	...	Dew began to be de- posited about 19 ^h 30 ^m and continued for nearly an hour.
19	45	29.947	79.8	76.8	87	82.1*	* In the shed.
20	0	.957	79.0	76.6	89	86.5	
20	15	.960	79.0	76.8	90	86.8	
20	30	.961	80.4	77.4	87	96.5	
20	45	.962	81.9	77.8	83	109.8	
21	0	.969	81.8	77.5	82	115.3	
21	15	.973	83.5	78.8	80	120.5	
21	30	.971	84.4	78.8	77	128.3	

The normal rise of the barometer between 7 A.M. and 9 A.M. at this season is 0.028 in. Many of the observers who have to telegraph to Simla the weather observations at 8 A.M. used the code word for "dark gloomy weather"!

A number of photographs taken by amateurs throughout the presidency, including one of the annular phase taken at Cuddapah, were forwarded to the Observatory, but none of them contained any features of special interest.

The Solar Eclipse of 1894 September 29.

The following observations were obtained :—

Observer	First contact. M.M.T.			Last contact. M.M.T.		
	h	m	s	h	m	s
C. Michie Smith	21	3	27.6	22	29	2.9
K. V. Sivaramiah	...			22	29	2.3

Madras Observatory :
1894 October 25.

Total Eclipse of the Sun, 1894 September 29.

*Extract from the Meteorological Log (9,399) kept on board the SS.
"Yarrawonga." By Captain H. G. Thomas.*

(Communicated by the Secretaries.)

This eclipse was looked for on the morning of the 29th, but we were unable for clouds to note the time of first contact. As we were to the northward of the line of central shadow, it was observed by us as a partial eclipse. The central phase took place at 9.20 A.M., corresponding to G.M.T. $28^{\text{d}} 16^{\text{h}} 31^{\text{m}} 42^{\text{s}}$, the Sun's diameter being about $\frac{3}{4}$ hidden, disclosing a crescent at the underneath part. The sky keeping clear, the eclipse was observed to finish at 10.57 A.M., corresponding to G.M.T. $28^{\text{d}} 18^{\text{h}} 8^{\text{m}} 42^{\text{s}}$. Position of ship at central phase—Lat. $7^{\circ} 17' \text{ S.}$, Long. $70^{\circ} 12' \text{ E.}$ Position of ship at finish—Lat. $7^{\circ} 6' \text{ S.}$, Long. $69^{\circ} 58' \text{ E.}$

Meteorological Office :

1894 November 8.

*Observations of the Transit of Mercury on 1894 November 10 at
Sidmouth, Devon. By A. F. Lindemann.*

1. The observations were made on Muttersmoor, about 630 feet above sea, near Sidmouth, in N.L. $50^{\circ} 41' 28''$ and W.L. $3^{\circ} 16' 2''$, by Professor H. H. Turner, of Oxford, and A. F. Lindemann, of Sidmouth.

2. *Instruments.*—Professor Turner : Refractor by W. Wray, aperture 3.04 inches, focal length 40 inches, magnifying power 155, measured by observations on a graduated staff at noon, November 11. Eye-piece pulled out and image thrown on card screen firmly attached to telescope by wooden bars, so as to give an image of the Sun 3 inches in diameter. (It was intended to have this image 6 inches in diameter, but in the hurry of putting up the instrument after the shower mentioned below the wooden bars were attached too far up the telescope tube, and could not be altered in time. A black cloth was used to shut out stray light, and the observations were found very easy.)

A. F. Lindemann : Refractor by T. Cooke & Sons, 2.44 inches free aperture, 37 inches focal length. Eye-piece magnifying power 55, similarly determined on November 11.

3. *Watches.*—The pocket watches of the party were used and were compared as follows, being denoted by the following initials :—

- (1) Miss Dora Davidson's watch, D.D.
- (2) Professor Turner's watch, H.T.
- (3) A. F. Lindemann's watch, L.